PowerSchool Handbook

Introduction to PowerScheduler

Version 3.0
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PowerSchool

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About This Handbook

This handbook was created by the San Diego Unified IT Training Department as reference material for members of the Site Scheduling Team. It is designed to provide an overview of the various methods of site schedule construction, as well as the initial setup required for all methods. It is updated periodically by the San Diego Unified IT Training Department. If you have any questions about how to execute these tasks in PowerSchool, please contact the IT Help Desk: (619)209-HELP (4357) or https://sdusd.cherwellondemand.com

Dates and terms depicted throughout this handbook are used as examples and may not reflect the current scheduling school year or term.

If you are missing a course that your school plans to offer, contact Marcellus Walker at mwalker@sandi.net.

If you have questions regarding site schedule theory, policies/procedures, or any other course-related questions, please contact Dr. Jennifer Roberson at jroberson@sandi.net, or Sharon Rubalcava at srubalcava@sandi.net.

Part 1: Overview

Planning for Construction

Creating a site schedule is like building a house. Many hours of planning and preparation take place long before the actual construction begins; a plan must be formulated, blueprints drafted and approved, and potential conflicts remedied before you lay the foundation and begin building the walls.

Like a house, the integrity of your site schedule depends on a solid plan, a sturdy foundation, and a method of construction that will ensure the best design for your school.

As you prepare to lay your site schedule foundation, consider several factors:

- **What courses will be offered?**

  o What is the plan to check that the correct courses are being used?

- **How many sections of each course do you need?**

- **What is the plan to collect Course Requests?**

  o Will they be manually entered?

  o Will students choose their classes online?

- **Do students have enough course requests?**

  o What is the plan for vetting course requests?

- **What are your teacher's assignments?**

  o How many sections of a course will they teach?

- **How many periods will the day have?**

  o For K-8 schools, did you include an Elementary Period?

  o If you are offering Edgenuity at your site, have you considered those periods?

  o Do you plan to offer before or after school periods?

  o Will you include a lunch period in the schedule?

- **Will you offer single or multiple cycle days?**

  o **Single Cycle Day** (A Day) – The classes offered during specific periods will not change from day to day. Students complete their full schedule in one day.

  o **Multiple Cycle Days** (A Day/B Day) The classes offered during specific periods may change depending on the day. For example, on A Day, period 1 is Science. On B Day, period 1 is PE. Students complete their full schedule over multiple days.

Outline of the Construction Process

While the mechanical and technical aspect of building the site schedule vary by method, the basic structural outline is the same:

- ✓ **Select a method of site schedule construction and student scheduling** – Decide what tools you will use to build your site schedule and schedule students.

- ✓ **Perform the Initial Set up in PowerScheduler –** All methods of construction require the same initial set up in PowerScheduler.

- ✓ **Collect and enter data for site schedule preparation –** Preparation will vary depending on the selected method of construction.

- ✓ **Create the site schedule –** Build the site schedule according to the selected method of construction.

- ✓ **Schedule students –** Schedule students according to the selected scheduling process.

- ✓ **Finalize the site schedule and student schedules before the Commit Process –** The site schedule and student schedules should be checked for errors. It is easier to clean up errors in PowerScheduler prior to committing the site schedule to the "live" side.

- ✓ **Commit the site schedule**

Regardless of the construction method you choose, the success of your site schedule build is measured by several factors. Adhering to these best practices will ensure that the process of building goes smoothly:

Stay organized

- Stay on track by completing each task before moving to the next.

- Keep a schedule journal to keep track of the steps you have completed and where you have left off at the end of the day. This will help eliminate the possibility of missing important steps.

- Write down questions as you think of them.

Be mindful of data entry

- Do not rush through entering data. One small mistake could end up creating a bigger problem.

Frequently check for errors

- Check and double check your data. Run reports often. Catching mistakes early will save you hours of cleanup later.

Part 2: Building & Scheduling Options

Building Options

PowerScheduler Build Method

Intended for: Schools wanting to use automated building capabilities. This method uses the scheduling engine in PowerScheduler to automatically build a site schedule based on parameters entered by the school. The process considers teacher assignments, course setup, constraints and relationships, and student course requests to place sections within the schedule to provide optimal student scheduling.

Pros: With exact data entry, this method is more efficient; Course parameters are defined once, and the process duplicates the information across all sections of that course, compared to manually defining each section of the course.

This method also automatically creates Section Links based on course relationships to ensure students are scheduled with the same teacher and period from one term to another. For schools with semesters and/or quarters, this process saves hours of creating each Section Link by hand.

The resulting schedule can be accepted as is, or scheduling parameters can be reconfigured, and the schedule rebuilt. Sections can also be moved, deleted, or changed manually once the resulting schedule has been finalized.

Cons: This method requires considerable prep work. Course and teacher information must be carefully defined; sloppy data entry causes Validation and/or Build Errors that are time consuming to clear.

PowerScheduler Manual Method

Intended for: Schools wanting to manually create a pre-determined schedule.

Pros: This method allows for the purposeful placement of each section so that it follows a model designed by the site's scheduling team. This method does not require pre-build course and teacher parameters or setup.

Cons: For larger schools, this method is time consuming with a high margin for error. Since each section is created individually, missing a step, or not catching a mistake could create more work after the school schedule has been committed.

The manual placement of sections doesn't always guarantee maximum student scheduling; this usually results in sections having to be moved multiple times before the best placement is determined.

If you are planning to use the Loader to schedule students and/or the Automated Walk-in Scheduler on the live side, Section Links must be created by hand.

Scheduling Options

Load Scheduling Method

Intended for: For schools that would like the Scheduling Engine to automatically schedule students based on their course requests.

Once you have a satisfactory school schedule, the Load process will consider student course requests and load constraints, such as section types, section links and Load Priorities, as it works to place students in the best possible schedule.

Manually Scheduling Method

Intended for: For schools that will be scheduling individual students by hand, or using the Schedule Mass Enroll feature for a selected group of students.

Part 3: Courses, Sections & Terms

Selecting the Right Course and Term

What is a Course and Credit Value (Credit Hour)?

A Course is a plan of study on a particular subject. For scheduling purposes in PowerSchool, it is identified by a **Course Number** and **Course Name**.

Most secondary courses have credit values. In PowerSchool these are referred to as credit hours. Students have the potential to earn credits once the course is completed successfully. These credits accumulate towards graduation.
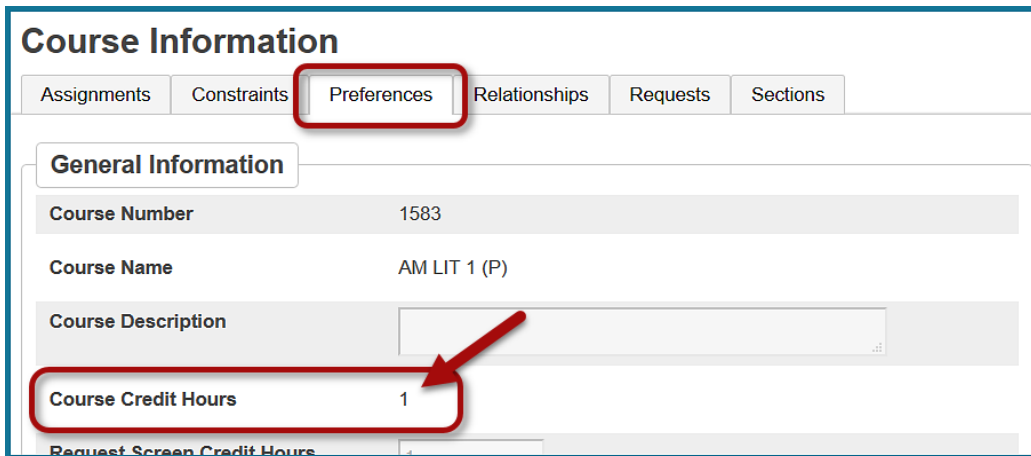
A course credit value, or credit hour, is a unit of measure that is used during the grade calculation to determine GPA. It is important to understand a course's credit value when you create new course sections and enter student course requests. Using a course with the wrong credit value or applying the wrong term to a course section can affect a student's GPA calculation or earned credits.

> Courses with **no underscore** (for example, **2321**) have a credit value of **1**. These courses are usually used for Semester or Quarter long classes. **NOTE!** There are exceptions to this rule, always check the course credit value.

> Courses with an **underscore 2** (for example, **1520_2**) have a credit value of **2**. These courses are usually used for year-long classes.

> Courses with an **underscore 4** (for example, **1607_4**) have a credit value of **4**. These courses are used for blocked (2 period) year-long classes.

The **Course Credit Value** can be found on the **Preferences** tab of the **Course Information** page in PowerScheduler.

What is a Section?

A section is one occurrence of a course and is sometimes referred to as a "class."

Each course can have multiple sections, or classes, which meet in different rooms, at various times, and can be taught by different teachers. Each section is represented by the **Course Number** and a **Section Number**.

Course Number	Section Number	How it appears in the school schedule and on teacher and student schedules
2321	2	2321.2
1520_2	1	1520_2.1

What are Terms?

Terms are the periods of time into which a school year is divided, and each *term* corresponds to a grading period.

As course information is set up to be used during the Build process, or when Sections are manually created, a *term* is applied. The applied *term* and the course's *credit value* determine what percentage of the course credit will be used for GPA calculation later during the grade storing process.

IMPORTANT! *Be sure the correct Term has been applied*. An incorrect term will affect the student's earned credit and GPA later down the road.

Part 4: Required Setup for All Methods

Verifying the Active Scenario
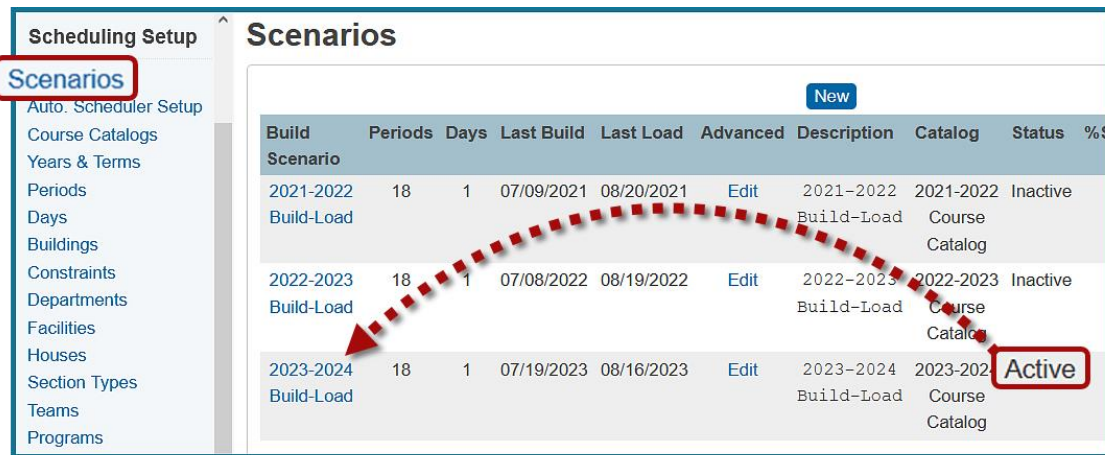
The Active Scenario includes scheduling parameters that are used to create a site schedule. The initial Scenario is set up by IT, and its parameters are based on the school's current school year. Scenarios can be duplicated to work with different combinations of criteria, but only one Scenario can be active at any given time. The Scenario parameters should be verified and/or updated prior to creating your site schedule.

Some information used to create the site schedule is exclusive to a particular scenario, other information is shared amongst all scenarios. See the table below for a list of which information is shared, and which is not.

Data exclusive to a particular scenario	Data shared between all scenarios
Site schedule	Students
Student schedules	Student course requests
Constraints	Student course request pages
Course rank	Teachers
Teacher assignments	Rooms
Course relationships	Course groups

Verify and update the Scenario information, as needed:

1. On the **PowerScheduler page**, under Scheduling Setup, click **Scenarios**.

2. On the **Scenarios** page, click the *Active Scenario name*.

3. On the **Edit Build Scenario** page, select the appropriate **Build Information**:

Build and Load – This option is for schools using the P**owerScheduler Build** and **Load Scheduling Method**. This setting will enable a **Build (Q)** and **Load (Q)** link to appear in the main menu under Processing.

Load Only – This option is for schools using the **PowerScheduler Manual Method** to create their site schedule. This setting also makes the **Load (Q)** link available to schools using the **Load Scheduling Method** for student scheduling.

4. Verify the **Active Build** box is checked.

5. **Terms –** Verify that the number **4** appears in the **Terms** box.

6. Click the **Associate** button.

7. On the **Scheduling Term Setup** window, verify all *3 boxes* are checked.

   All schools are set up with Quarter Terms, whether they use them or not.

8. Click **Submit**.

Schedule Term Setup

2023-2024
08/21/2023 - 06/06/2024

Semester 1
08/21/2023 - 01/21/2024

Semester 2
01/22/2024 - 06/06/2024

Quarter 1
08/21/2023 - 10/22/2023

Quarter 2
10/23/2023 - 01/21/2024

Quarter 3
01/22/2024 - 03/31/2024

Quarter 4
04/01/2024 - 06/06/2024

Submit

9. **Periods** – Verify the correct number of **periods** appear. Use the drop-down menu to adjust the number, if needed.

   Consider extra periods to accommodate advisory, lunch (optional), after school and/or zero periods, as well as the elementary period for K-8 schools. *Schools offering on-site Edgenuity Courses* should also consider additional periods for those courses.

Edit Build Scenario

Build Information

⦿ **Build and Load**
Use this scenario setting to build a master schedule and load students into the built schedule.
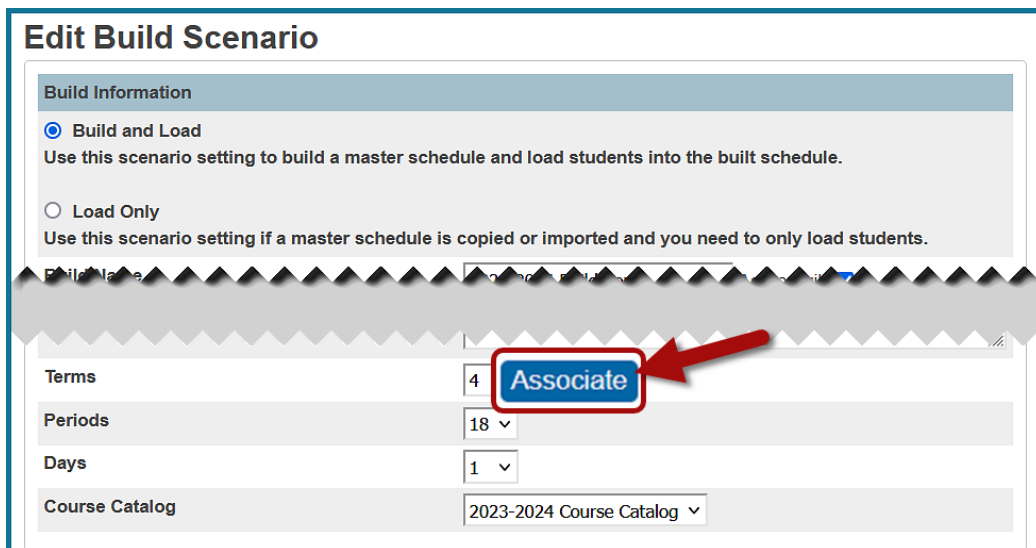
○ **Load Only**
Use this scenario setting if a master schedule is copied or imported and you need to only load students.
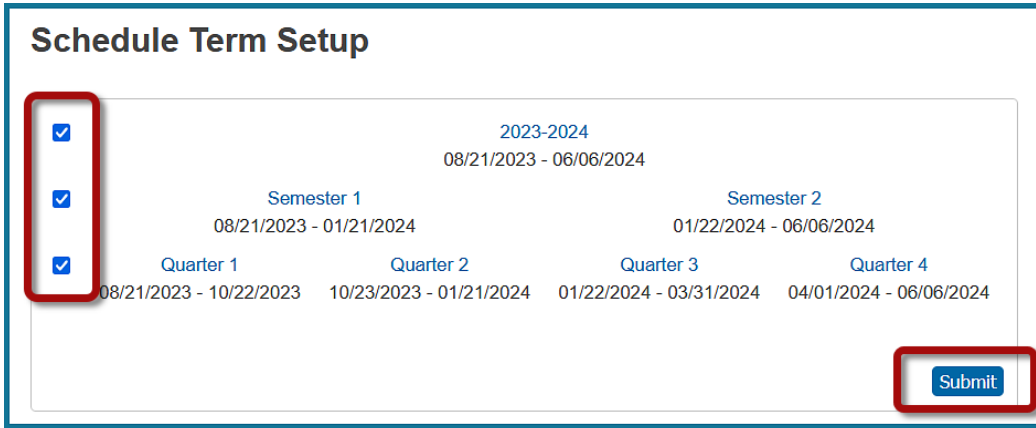
Terms	4 Associate
Periods	18 ⌄
Days	1 ⌄
Course Catalog	2023-2024 Course Catalog ⌄
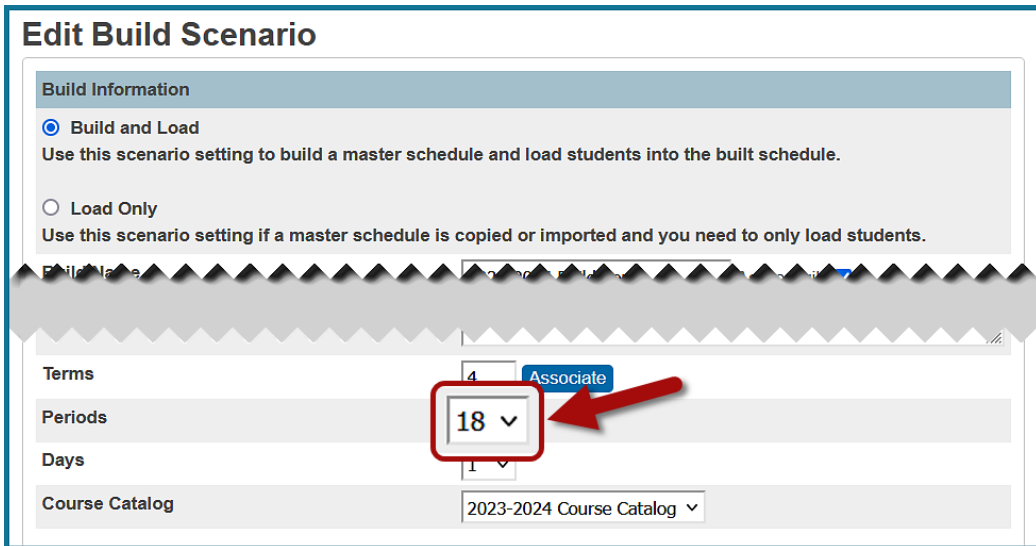
10. **Days** – A cycle **Day** is the number of days it takes for a student to complete a schedule.

Verify the correct number of cycle **Days** appear. If you are changing the number of days being offered, select the new number from the drop-down menu. for Cycle Day examples, see the **Introduction to PowerScheduler Handbook**.

Cycle Day Examples:

Single Cycle Day (A Day) – The classes offered during specific periods will not change from day to day. Students complete their full schedule in one day.

Select **1** for a single cycle day.

	Monday A Day	Tuesday A Day	Wednesday A Day	Thursday A Day	Friday A Day
Per 1	Art	Art	Art	Art	Art
Per 2	English	English	English	English	English
Per 3	History	History	History	History	History
Per 4	Math	Math	Math	Math	Math
Per 5	Science	Science	Science	Science	Science
Per 6	Language	Language	Language	Language	Language

Single Cycle Day (utilizing the Bell Schedule for alternating days)

Select **1** for a single cycle day.

	Monday A Day	Tuesday A Day	Wednesday A Day	Thursday A Day	Friday A Day
Per 1	PE		PE		PE
Per 2	Math		Math		Math
Per 3	English		English		English
Per 4	Chemistry		Chemistry		Chemistry
Per 5		History		History	
Per 6		Art		Art	
Per 7		Avid		Avid	
Per 8		Language		Language	
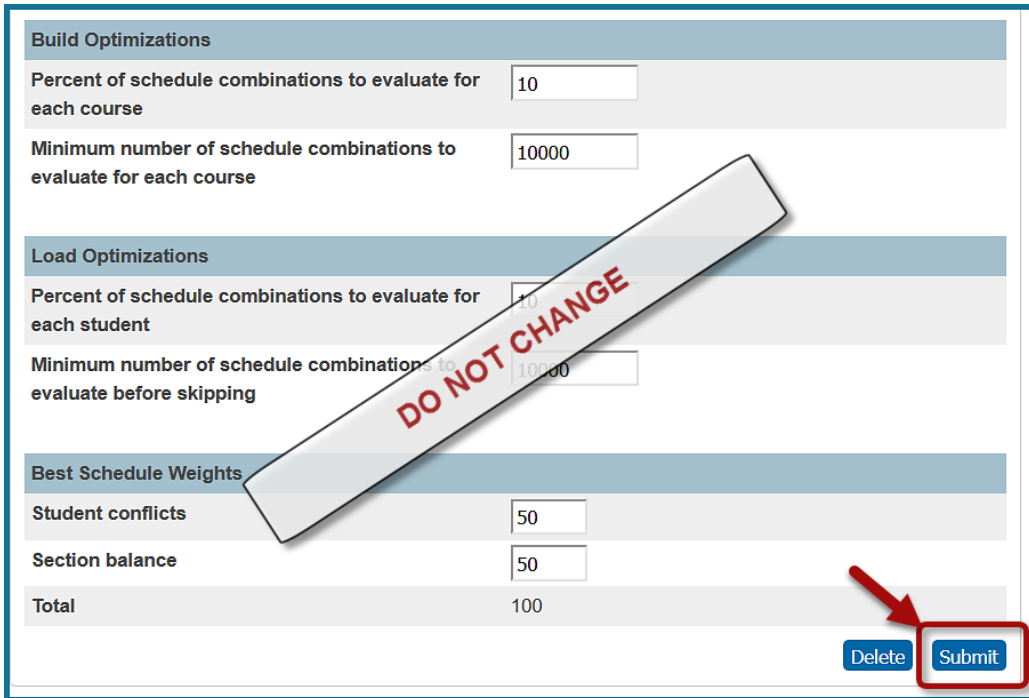
Multiple Cycle Days (A Day/B Day) The classes offered during specific periods may change depending on the day. For example, on A Day, period 1 is Drawing & Painting. On B Day, period 1 is Ceramics. Students complete their full schedule over **2** days.

Select **2** for multiple cycle days.

	Monday A Day	Tuesday B Day	Wednesday A Day	Thursday B Day	Friday A Day
Per 1	Drawing & Painting	Ceramics	Drawing & Painting	Ceramics	Drawing & Painting
Per 2	English	English	English	English	English
Per 3	History	History	History	History	History
Per 4	Math	Math	Math	Math	Math
Per 5	Science	Science	Science	Science	Science
Per 6	Language	Language	Language	Language	Language

11. **Build Optimizations** – Do Not Change.

12. **Load Optimizations** – Do Not Change.

13. **Best Schedule Weights** – Do Not Change.

14. Click **Submit**.

Updating the Course Catalog
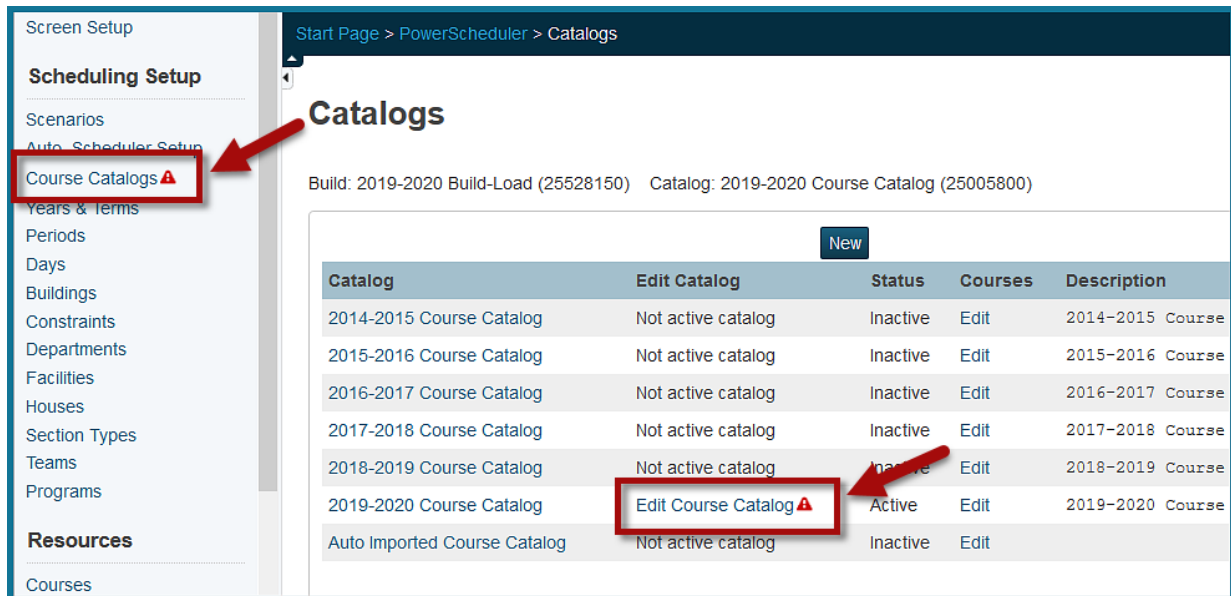
Each year, IT creates a new Course Catalog in PowerScheduler that contains all the courses available to your school for use in the next school year. Once the Course Catalog has been updated, the list of available courses is narrowed down to only those your school plans to offer.

IMPORTANT! Before disabling (unchecking) a course in the Course Catalog, all prior setup associated to that course must be deleted. This means all Course Requests, Teacher Assignments, Course Relationships, Constraints (including Section Links), Course Sections created by the Builder or by hand, and "Schedule this Course" in Course Preferences must be deleted before the course can be removed from the Course Catalog.

New courses made available to your school **after** IT creates the Course Catalog will appear *unchecked*. The new course must be enabled (checked) to use it for the future year.

If the Course Catalog is missing a course that your school plans to offer, contact Marcellus Walker at mwalker@sandi.net to request the course be made available for next year.

1. From the Start Page, under Applications on the left-side menu, select **PowerScheduler**.

2. Under Scheduling Setup, select **Course Catalogs**. A *red warning icon* ⚠ indicates the course catalog contains courses that are no longer available to your school for the next school year. These courses must be disabled.

3. On the **Catalogs** page, click the **Edit Course Catalog** link.

4. By default, all courses are automatically checked, including courses that are no longer available to your school for the next school year.

- Uncheck all courses with a warning icon ⚠. These courses will appear in red.

- Uncheck the box next to each course you do not want to use next year.

HELPFUL HINT! Select the **Uncheck All button** to clear the checkbox for all courses, then apply a check to each course being offered. *This button will be disabled if course requests have been added for the scheduling year.*

NOTE: Once the **Uncheck All** option has been selected and the page has been submitted, this process cannot be reversed.

5. Click **Submit**.

Entering Student Course Requests

Student Course Requests are vital to scheduling. They are used to determine how many sections of a course are required and assist with the appropriate student placement during scheduling.

During the schedule loading process, requests are used to schedule students into their selected or required courses. Requests can also be used to load students into special sections of a course.

There are several methods to add or delete student course requests:

- Requests can be manually added or deleted for an individual student, or student group.

  See the **Student Course Requests Handbook** for instructions on how to manage student course requests.

- Students, parents, and counselors can add requests via the online Student Registration Screens.

  See the **Student Registration Screens Handbook** for instructions on how to set up the Student Registration Screens.

Adding/Editing Rooms in PowerScheduler

Rooms carry over from year to year. Verify and update the rooms if needed.

1. On the **PowerScheduler page**, under Resources, select **Rooms**.

2. On the **Rooms** page, verify the information is correct. To make changes, do the following:

3. Click on the room **Number** to edit an existing room, or the **New** button to create a new room.

4. On the **Add/Edit Room** page, make changes, as needed:

   *Room Number – Add a new name or edit the existing one.

   *Room Description – Add a new name or edit the existing one.

   Department – Leave blank

   Building – Leave blank

   House – Leave blank

   *Use for Scheduling –IMPORTANT! **If using the PowerScheduler BUILD Method -** Check the box. If the box is unchecked, the room will not be used for scheduling.

   Room Always Free – Leave blank

   Department Use Only – Leave blank

   Facility Use Only – OPTIONAL **if using the PowerScheduler BUILD Method** - If checked, you must assign a Facility.

   Room Facilities – OPTIONAL **if using the PowerScheduler BUILD Method** - Click **Associate** to assign a Facility to the Room. Be sure to check the Facility Use Only box.

   *Room Maximum – IMPORTANT! **If using the PowerScheduler BUILD Method** - This number MUST MEET or EXCEED the combined course maximum. For example, if you stack 2 courses and each course has a maximum enrollment of 36, the Room Maximum must meet or exceed 72.

5. Click **Submit** to save changes or **Delete** to delete the Room.
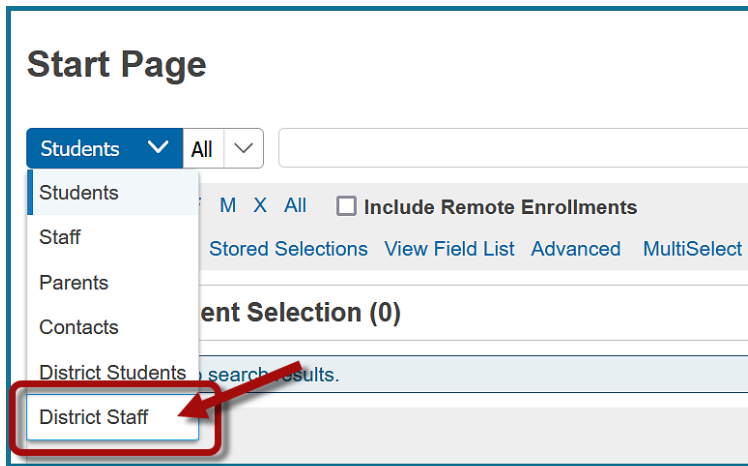
Adding/Removing Teachers in PowerScheduler

IMPORTANT! If the teacher has a current assignment at another school, wait until the current year ends before assigning them to your school for next year. Temporarily use a ZZTeacher placeholder for scheduling purposes.
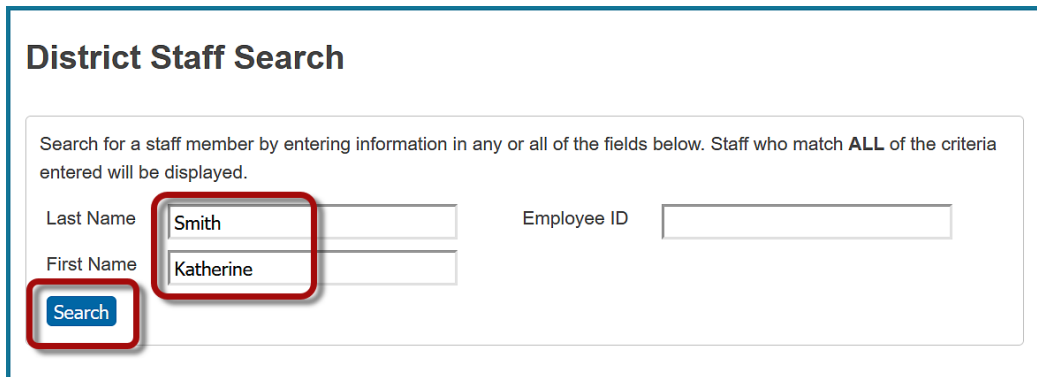
Adding a Teacher to Your School

1. On the **Start Page**, select **District Staff** from the search options menu**.**

2. Enter the teacher's name.

3. Click S**earch**.

4. Click the **Assign (pencil) icon** under the Assign heading.

District Staff Search Results

Staff members that matched your search criteria are displayed below. Click on the pencil icon 📝 to add the staff member to your school.

Search criteria:

✔ Last Name contains: **Smith**
✔ First Name contains: **Kathrine**

1 staff members found

Last Name ⬍	First Name, Middle Initial	Employee ID	Home School	Assign
Smith	Kathrine, S	122037	University City High	📝

5. Verify the correct teacher has been selected.

6. Select **Teacher** from the **Staff Type** drop-down menu, if needed.

7. Click **Submit**.

Assign Staff Member To This School

Name	Smith, Kathrine
Assign To	Henry High
Active	☑
Staff Type	Teacher
Notes	

Select **Teacher**

Submit

A confirmation message indicates the teacher was successfully assigned.

8. Click **Security Settings** to complete appropriate access to PowerTeacher.
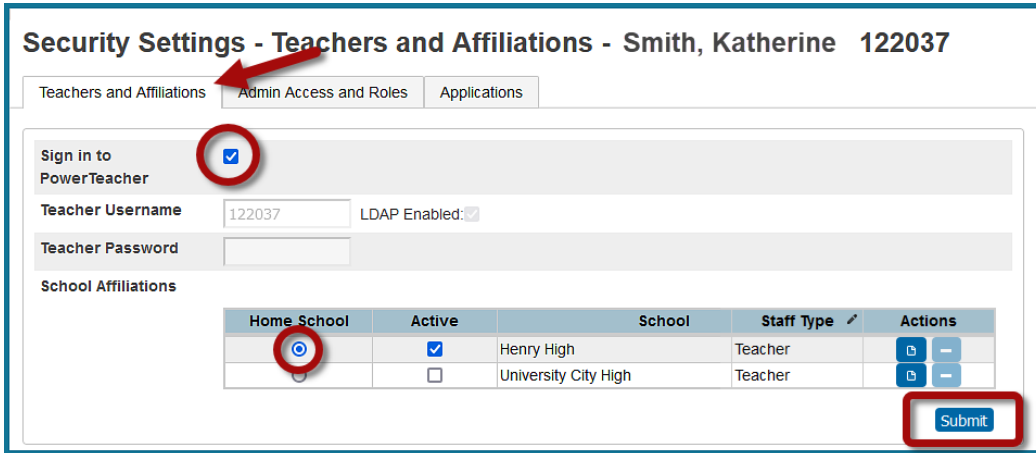
Assign Staff Member To This School

✔ **Success:** Smith, Katherine was assigned to Henry High. Use Security Settings to verify and complete appropriate access to PowerSchool or PowerTeacher for your site.

If this staff member is a substitute, please remove his or her access once they are no longer working at your school. If this staff member has not yet attended training for PowerSchool, please ask him or her to do so as soon as possible.

9. Verify the **Sign in to PowerTeacher** box is checked.

10. Select the **Home School** button for the appropriate school.

11. Click **Submit**.
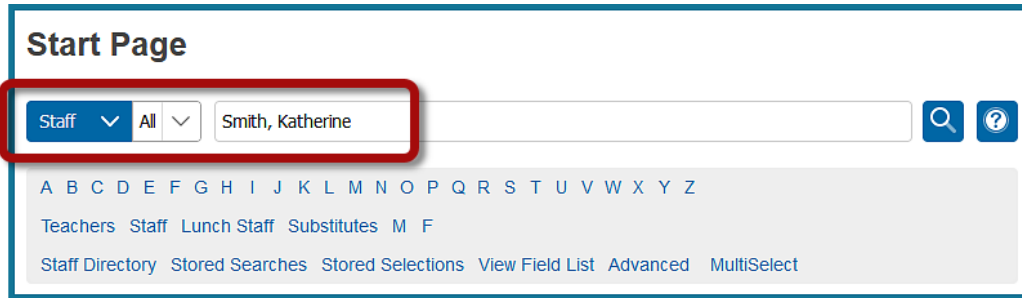
A confirmation message indicates the changes have been recorded.
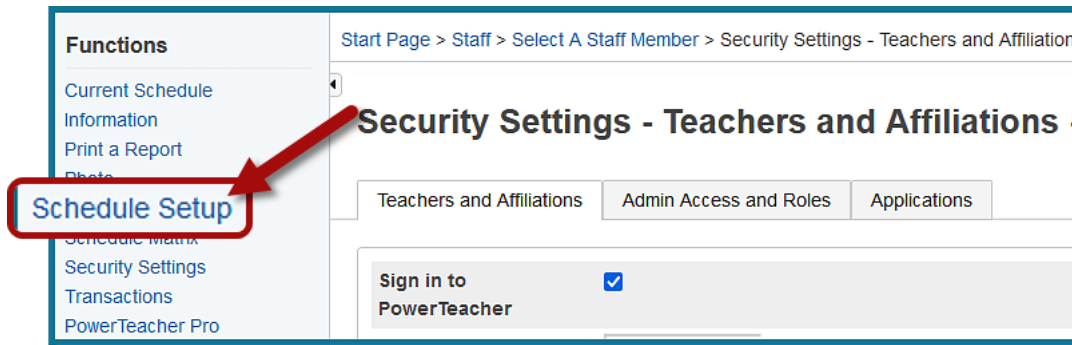
Making a Teacher Visible in PowerScheduler

Schedule this Teacher value must be turned on for the teacher to be visible in PowerScheduler.

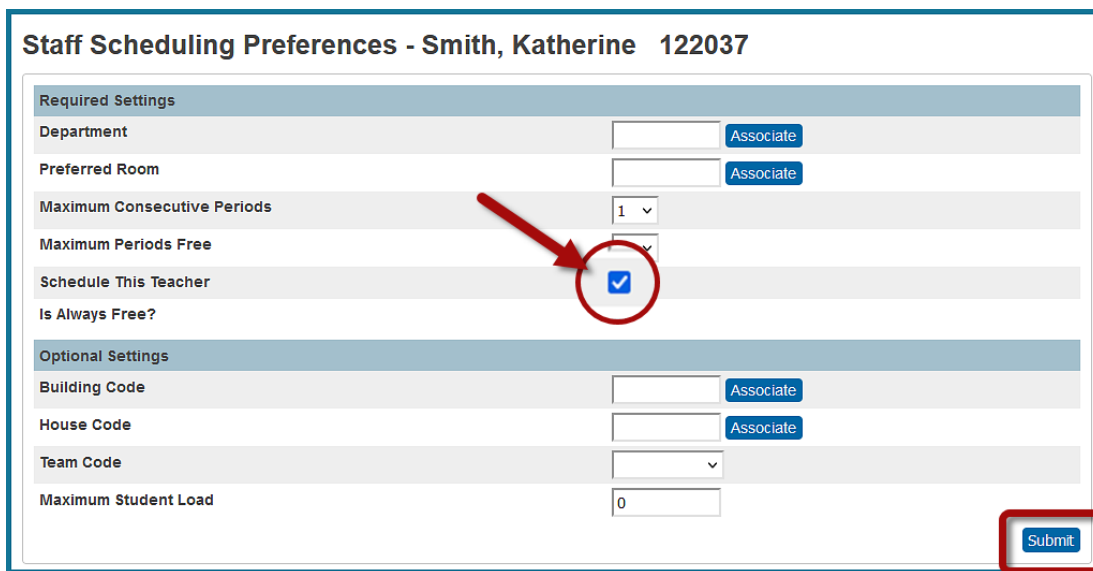1. Navigate back to the **Start Page**, search for the new teacher.

2. On the **Staff** page, under Functions, click **Schedule Setup**.

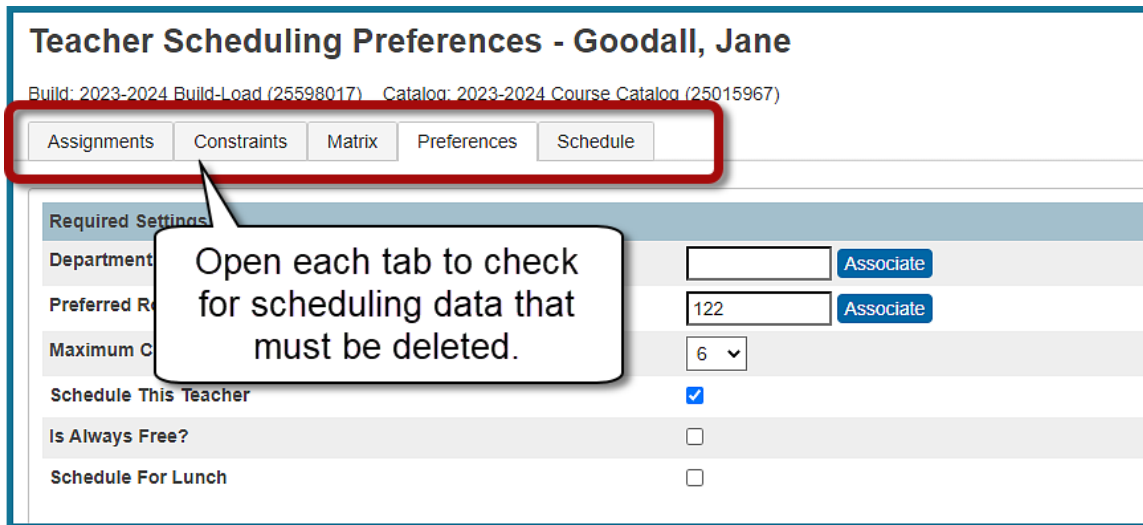3. Check the **Schedule This Teacher** box.

4. Click **Submit**.

Removing a Teacher from PowerScheduler

IMPORTANT! Before removing a teacher from PowerScheduler, all prior setup associated to that teacher must be deleted. This means all Teacher Assignments, Constraints, and any Course Sections created by the Builder or by hand.

1. On the PowerScheduler side, click **Teachers**, under Resources from the menu on the left.
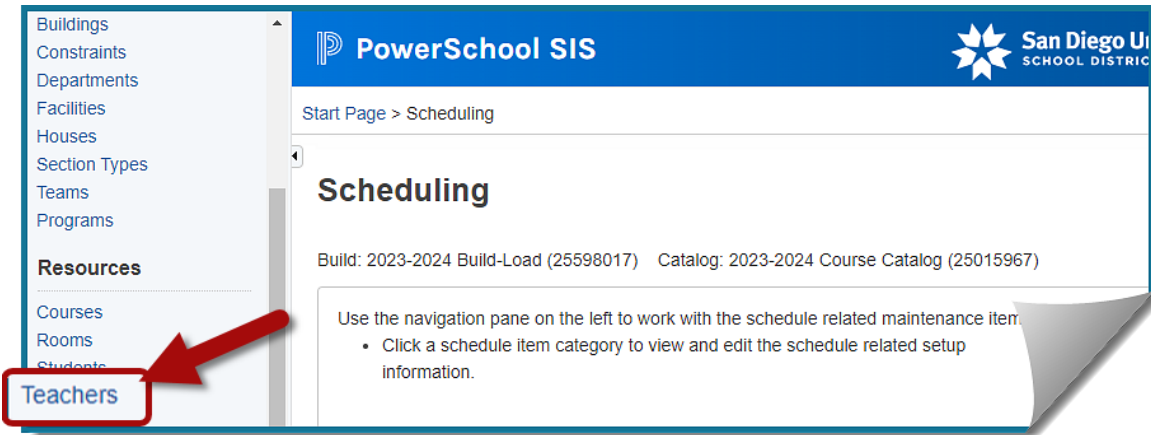
2. Select the teacher from the menu on the left.

3. On the **Teacher** page, open each tab to check for scheduling attributes that may need to be deleted before you remove the teacher.

4. Select the **Preferences** tab

5. Remove the check from the **Schedule This Teacher** box.

6. Click **Submit**.

Teacher Scheduling Preferences - Goodall, Jane

Build: 2023-2024 Build-Load (25598017)   Catalog: 2023-2024 Course Catalog (25015967)

| Assignments | Constraints | Matrix | Preferences | Schedule |

Required Settings

Department		Associate
Preferred Room	122	Associate
Maximum Consecutive Periods	6 ▾	
Schedule This Teacher	☐	
Is Always Free?	☐	
Schedule For Lunch	☐	